

## **ABSTRACT**

Disclosed is a method of manufacturing semiconductor devices. Before the threshold voltage ion is implanted, an inert ion having no electrical properties is implanted into the bottom of a channel region to form an anti-diffusion layer. Therefore, it is possible to prevent diffusion of an ion for adjusting the threshold voltage into the bottom of the channel region, occurring in a subsequent annealing process, and prohibit behavior of the ion at the channel region when a high voltage is applied to a P well. Further, the anti-diffusion layer serves as a layer to gather defects, etc. existing in the semiconductor substrate. Also, as the amount of channel ion could be adjusted by controlling the implantation depth of the inert ion, it is possible to control the threshold voltage of the device depending on higher integration.